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ABSTRACT

The Council for Environmental Education (CEE) publishes this annual review that reflects the changes that have brought environmental education in from the fringes and now attracts considerable political and educational attention. This edition brings together a selection of important statements by leading public figures and other papers and articles which reflect key developments of the period. Six articles related to the boom time in environmental education, the transition to education of sustainability, and strategies used by Scotland in instituting change in environmental education policies are included. Articles include: "Boom Time for Environmental Education?" (John Baine); "Education for the Sustainability Transition" (Timothy O'Riordan); "Facilitating an Environmental Approach To Education" (Baroness David); "Education for Sustainability" (Crispin Tickell); "Call to Action" (Peter Smith); and "Education or Catastrophe? Scottish Strategy Throws Down the Challenge" (Mark Wells). (DDR)

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Editorial Policy

The purpose of the *Annual Review* is to report, evaluate, encourage and guide progress in environmental education.

Its aims are to:

- provide a critical overview of the progress of environmental education in the UK;
- provide information on important initiatives and developments and comparative international developments;
- use the evidence of the past year to identify issues and priorities for the future.

Emphasis is given to articles on current thinking and developments in environmental education rather than detailed practice and methodology.

Its goals are to:

- assist and encourage all those interested or involved in working in this area by providing an authoritative review of the year and of trends;
- help win increased support and recognition for environmental education amongst decision makers at all levels.

The views expressed in this journal are not necessarily supported by the Council for Environmental Education.

Tim Osborn Jones, Director, Council for Environmental Education

Many readers will remember the special 25th anniversary issue of the *Annual Review of Environmental Education, On the fringe of the machine*, published in 1994. A veritable 'tour de force' edited by Stephen Sterling and Christine Midgley featuring contributions from 47 leading practitioners and commentators. An exceptional print run of 1,200 copies has been consumed!

For this issue the style, reflecting the content, has changed. 1994-1995 has seen environmental education 'come in from the fringe of the machine' and attract considerable political and educational attention. This change has naturally been brought about by and in turn has spawned a variety of speeches and reports, proposals and responses: from CEE officers, members and guests, goverment and other public figures.

This 1995 edition of the *Annual Review* brings together a selection of important statements by leading public figures and other papers and articles which reflect key developments in the period.

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John Baines MBE, CEE's first Director from 1978 to 1988, looks back at national developments in environmental education over the past 18 months.

Boom time *for environmental education?*

"Whenever absolutely everybody agrees on something, it's a sure bet that not very much is actually getting done"

stated Jonathon Porritt in the September 1995 edition of *BBC Wildlife*. He was referring to environmental education and claiming that while everyone agrees that environmental education is a crucial component of our response to today's ecological crisis,

"what is actually going on out there in our schools, colleges and communities is still woefully inadequate".

This is quite a claim to make when the past 18 months have seen an unprecedented growth of interest in environmental education from Government, non-governmental organisations (NGOs) and local authorities. Environmental education is certainly on a national agenda and in this article I shall try to describe what I believe are some of the most significant developments which fall within the sphere of influence of the Council for Environmental Education (CEE). Where helpful, I shall try to set the developments into a wider historical, geographical and conceptual context and I do not suppose I shall be able to resist the temptation to make some personal comments as well. Then it is up to each organisation and individual to bring their own knowledge and experiences to the topic, evaluate progress and join in the process of planning and implementing environmental education.

And why a BOOM time? Without wanting to carry the analogy too far, explosions are out of the ordinary. They demand attention. They can bring good and bad. They can free up blockages to progress, or they can divert attention from sustainable progress and, at worst, destroy what progress has already been made. Let us hope the current activity brings about the sustainable progress so many people hope for.

The biggest boost for environmental education in recent years has been the agreements struck at the Earth Summit in Rio de Janeiro in 1992, notably the global action plan for sustainable development known as Agenda 21. Governments committed themselves to extending the provision of environmental education. Although there is no legal agreement to define what constitutes commitment, governments around the world are taking environmental education more seriously. Perhaps it is the requirement to report regularly on progress to the Commission on Sustainable Development, the UN agency established to follow up the Earth Summit. Perhaps it is the growing awareness that environmental targets will not be reached without raising awareness of the issues and encouraging people to participate in more environmentally friendly lifestyles. Whatever the reasons, ministerial interest in environmental education in Britain is running at a commendable all time high. The environmental education movement needs to capitalise on the interest but should beware of becoming too distracted by it.

"...ministerial interest in environmental education in Britain is running at a commendable all time high. The environmental education movement needs to capitalise on the interest but should beware of becoming too distracted by it."

Environmental education and education for sustainability

Since the Earth Summit, sustainable development has become the generally agreed goal and education has been identified as one of the means of achieving this sustainable society. As a result a new phrase has been added to the educational vocabulary – education for sustainability. However this phrase is rarely used. There is a lot of documentation and discussion about sustainable development, sustainable living or sustainability, but when education is referred to in this context, the term environmental education is most frequently used. Although education for sustainability is used by a minority, environmental education seems to be becoming the established term to describe the educational approach which will help achieve sustainability. This will be inappropriate if our understanding of environmental education does not evolve to include the social dimension that is so strong in development education. Without this change of perception, the role of education in helping make the transition to sustainable development (as expounded by Tim O'Riordan at CEE's Conference in March 1994, see page 8) is going to be all the harder to achieve.

There are several initiatives and programmes that suggest that the understanding of environmental education is expanding. One example is provided by the Education for Sustainability Forum (ESF). Before the Earth Summit, a number of organisations, working in the fields of environmental and development education, came together to prepare documents with recommendations for education for sustainability. The Forum is still in existence and is now advising and assisting UNED-UK with new education programmes. For example UNED-UK and ESF are collaborating to promote the notion of the education community as a Major Group within the UN Agenda 21 process. This proposal, addressed to the international community, is being referred to as the "Education 21" initiative.

Another example is the distance learning masters degree in environmental and development education developed by South Bank University and another the Eco-Schools project introduced to the UK by the Tidy Britain Group and to be developed in conjunction with CEE. The scheme provides a process for schools to apply what is learnt in environmental education to the management of the school in a sustainable way.

Eco-Schools

When it has taken almost 40 years to get the term environmental education accepted and used, it is probably not a good idea to try and replace it with education for sustainability. However, to recognise that there is this added dimension to it, perhaps it is time to learn from one of the UK political parties and simply talk about 'new environmental education'.

Government and environmental education in schools

Sustainable development: the UK strategy

The Government launched this major document in January 1994 in response to commitments made at the Earth Summit. In it were announced three important new measures to encourage sustainable development:

- the Government Panel on Sustainable Development to give authoritative and independent advice;
- a UK Round Table on Sustainable Development to bring together representatives of the main sectors or groups;
- a Citizens' Environment Initiative to carry the message to individuals and local communities (now known as Going for Green).

Baroness Blatch

On 7 July 1994, Baroness Blatch, Minister of State at the Department for Education (DFE), gave a speech at the launch of the Confederation of British Industry's *Guidelines for businesses on preparing environmental education resources for schools*. CEE said

"it could be described as a stirring and controversial speech".

She acknowledged, for the first time that I can remember, that the Department for Education (DfE) had an important role to play in environmental education and the Government's strategy for sustainable development. She suggested that environmental education should be based within a realistic educational framework around

"a solid grounding in proper academic disciplines, particularly those of English, mathematics and science".

She also suggested that the National Curriculum was the proper medium for delivering environmental education in schools, but she did not feel it was up to the Government to dictate how environmental education should be delivered by schools.

CEE built on this opportunity and was able to arrange a meeting with Eric

Forth who succeeded Baroness Blatch as Minister of State at the DfE. It took place in October 1994 and focused on developing the role of environmental education and increasing inter-departmental cooperation. This represented a major achievement for environmental education. For the ten years I was Director at CEE, the Department for Education and Science resolutely stood aloof from environmental education in the formal sector on the grounds that the Department of the Environment (DoE) was already giving considerable support to environmental education. It did, however, provide a lot of encouragement and support for environmental education in youth work and Her Majesty's Inspectors (HMI) like Rupert Booth were always forceful champions of environmental education.

CEE submission to the Government Panel on Sustainable Development

The chairman of the Government Panel on Sustainable Development, Sir Crispin Tickell, has to make regular reports on important issues and environmental education was to be addressed in the first report of the Panel. CEE used the opportunity to make a submission, a summary of which appeared in *UPDATE*. The submission made it clear that CEE did not think the Government was doing enough to honour the commitments it had made at the Earth Summit.

In the meantime, CEE invited Sir Crispin to address the 1994 annual conference (see page 15) where he stated:

"*Without sustainability in education, there is no prospect for sustainability anyhow or anywhere.*"

In his talk he stated that everyone who argues for sustainability sees education as an indispensable part of the process, but finding how to put them together is the problem. The education system itself is part of the problem. For example, at the root of education for sustainability is interconnectedness, but curriculum discussions focus on teaching separate subjects like geography and science which fragment learning. He said:

Nowhere is there recognition of... the need for pupils to be able to integrate the perspectives gained from different disciplines into a coherent view of the world.

First report of the Government Panel on Sustainable Development

In January 1995, Sir Crispin presented his first report. He said:

"*the Panel has concentrated on areas where the Government has... specific responsibilities, and where its leadership can be crucial*"

The report picks up on a statement from *Sustainable development: the UK strategy* that the influence of education and training applies across the boundaries of the voluntary, public and private sectors, is not only the responsibility of schools and colleges and is not only to be addressed to young people. The report calls on the Government to develop a comprehensive strategy for environmental education and training to cover both formal and informal education and to bring in the wide range of related activities by official and voluntary bodies, industry and commerce, and local communities. CEE had been pressing Government to develop a strategy for some time, so the endorsement of this initiative by the Panel was very welcome.

The Government responded quickly to the education recommendations in the Panel's report with a conference in February 1995 and an official response in March 1995.

Chronology of selected events

June 1992
Signing of Agenda 21 at the Earth Summit in Rio de Janeiro and the establishment of the UN Commission on Sustainable Development

January 1994
Launch of *Sustainable development: the UK strategy*, announcing the setting up of:

- the Government Panel on Sustainable Development (chaired by Sir Crispin Tickell)
- a UK Round Table on Sustainable Development
- a Citizens' Environment Initiative, now known as Going for Green

October 1994
Launch of *Educating for a sustainable local authority*

Launch of *Taking Responsibility: Promoting Sustainable Practice through Higher Education Curricula*, series with 12 titles

November 1994
Sir Crispin Tickell addresses the CEE annual conference

December 1994
CEE makes a submission on environmental education to the Government Panel on Sustainable Development

January 1995
Publication of the *First report* of the Government Panel on Sustainable Development

CEE's response to the Panel's report

February 1995
Department of the Environment and the Department for Education joint conference on Education and the Environment: the Way Forward

March 1995
The Government's response to the *First report* of the Panel

April – September 1995
Six month secondment to the Department of the Environment of Jenny Jones, Environmental Manager of Shell UK, to advise on the development of a national strategy for environmental education

May 1995
Launch of "*Call to Action*", encouraging schools to develop whole school policies for environmental education

June 1995
Government announces next steps for school based environmental education

Publication of *A Scottish strategy for environmental education: the statement of intent by the Secretary of State for Scotland* in response to the *Learning for life* report

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Joint DfE DoE conference

The Department for Education and the Department of the Environment agreed to host jointly a conference for key representatives of the environmental education movement. This historic conference, Education and the Environment: The Way Forward, took place in February 1995. It was addressed by both the Rt Hon Gillian Shephard MP, Secretary of State for Education, and the Rt Hon John Gummer MP, Secretary of State for the Environment. Other keynote speeches were made by Dr Nicholas Tate, Chief Executive of the School Curriculum and Assessment Authority and Mr Martin Laing, Chairman of John Laing plc and Chairman of the Trustees of WWF-UK.

In the opening paragraph of her talk to the conference, Gillian Shephard stated the purpose of the conference:

"We want very much to draw on your experience and ideas so that we can help teachers in England and Wales to teach effectively about the environment."

She considered that the National Curriculum must provide the vehicle for that education and was pleased to report that in the course of slimming down the National Curriculum, the environmental content of the geography, science and technology requirements had remained virtually intact. In syndicate sessions, participants were also asked to consider ideas proposed in the conference prospectus, including the preparation of guides to educational resources on themes which are relevant to National Curriculum requirements and the dissemination of good practice.

Conference outcomes

The outcomes of the conference were reported in *Education and the environment: the way forward*, the report of the conference and a DfE news release in June 1995. The report states one of the most pressing needs identified was help for teachers in identifying suitable materials and resources for teaching about the environment. Another need was for guidance on good practice in environmental education. To try and

meet these needs, the Secretaries of State have therefore decided to ask:

- CEE to advise them on the practical implications of establishing a Code of Practice for the producers of environmental teaching materials and resources, perhaps including a system of peer review;
- officials to commission a study of the feasibility, cost and funding implications of a national index of materials and resources suitable for teaching about environmental matters;
- the School Curriculum and Assessment Authority, working in partnership with CEE and the Royal Society for the Protection of Birds (RSPB), to identify and publish examples of good practice in environmental education.

CEE welcomed the report and stated that it would continue to monitor and support each of the initiatives through its Resources Working Group and the Practitioners' Guide Working Group.

Government and a national strategy for environmental education

Subsequent to the Government Panel on Sustainable Development's recommendation that the Government review its overall strategy to secure a coherent and comprehensive approach, Jenny Jones, Environment Manager of Shell UK, was seconded to the Department of the Environment to draft a strategic review of environmental education and training. CEE members met with her to put forward their views on what was needed and it is understood that an outline review was put to the UK Round Table on Sustainable Development in June and that there will be a ministerial statement in autumn 1995.

In all the material coming out of the conferences and discussions, there has been no mention of what type of strategy is being called for. Is it for example detailed or general, bottom-up or top-down, short-term or long-term? Before the process gets too much momentum, it would be worthwhile to consider some of the issues arising from committing oneself to having a strategy. The Scottish approach may be compared with interest.

The Scottish strategy for environmental education

In Scotland, the strategy process is much more developed. In 1990 a working group was set up to prepare a report for the Secretary of State for Scotland. In April 1993, its report *Learning for life* was completed. It received much acclaim, not only within Scotland but in the rest of Britain and overseas. Many countries are using the Scottish approach as a model for the preparation of their own environmental education strategies.

The official response from the Secretary of State, *A Scottish strategy for environmental education*, came in June 1995. The Scottish Environmental Education Council (SEEC) welcomed the establishment of a Sub-Group on Education for Sustainable Development but was disappointed that this fell short of the recommendation in *Learning for life* that a national advisory panel for environmental education be set up (see Mark Wells's article on page 24). Ian Pascoe, the Chair of SEEC, said:

"The Government's response has been positive but now begins the real challenge of implementation."

What is not clear from official announcements by NGOs and Government, north and south of the border, is how the Scottish strategy fits in with the national strategy being considered by Jenny Jones at DoE in London and other initiatives announced by Government. The

majority of announcements seem most relevant to England, with references to the National Curriculum, the School Curriculum and Assessment Authority, the Department for Education and so on. There seems to be a danger that what is essentially an English debate with government departments with an English emphasis, will suddenly acquire a UK label and status. If the UK strategy is to be coherent and comprehensive, it is a question that will have to be addressed.

Help for teachers

Much of the recent discussion has focused on options to provide practical help for teachers. Many commercial, charitable, professional and educational organisations are involved in this process and have an interest in environmental education in schools. There is evidence that the ever-increasing volume of environmental education resources itself causes teachers problems related to information-overload and selection, hence the current debate about a code of practice and a national index of materials.

Lack of training is still identified as a constraint to the progress of environmental education. Training needs are being addressed in a number of ways, but there are severe financial restrictions on this effective but expensive approach. Professional associations such as the National Association for Environmental Education and the Geographical Association have continued to organise regular meetings and conferences. CEE has added to the series of in-service training modules which can be used by teachers with no formal training in environmental education. WWF-UK has produced materials in its *Reaching Out* programme and uses them to train trainers who in turn use them to train teachers. There are still some local authorities with advisers available to run training courses for teachers, but they normally have to be run on a commercial basis.

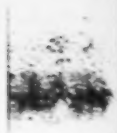
There is a lot of evidence that environmental education is still not being planned in a coherent and comprehensive way in schools and this prompted CEE in a major collaborative

venture with its member organisations to prepare the document, *Develop an environmental policy: a call to action for schools*, known as the 'Call to Action'. It will be followed by a practitioner's guide providing advice, guidance and case studies of good practice. The Call to Action was launched by Peter Smith HMI (see page 21) who reported that based on OFSTED inspections, in his own survey carried out in autumn 1994 of 682 primary and secondary schools:

- only 17% referred to environmental education;
- only 2% of schools had any policy for environmental education;
- 1% had undertaken an audit;
- 10 schools had a coordinator in post;
- where there is a policy there is not necessarily a management plan to achieve it.

On the optimistic side, over 4,000 schools have responded to the Call to Action, some sending in their whole-school policies and others examples of what they are doing both within and without the curriculum.

Further and higher education



Pressure for environmental education from NGOs has most commonly been focused on school based education. There are one or two organisations like the Institution for Environmental Sciences and the Committee of Heads of Environmental Sciences which focus on further and higher education. Recognising that the majority of key decision makers will receive a college or university education, there has been increasing pressure for course providers to include environmental education. There are many professions whose activities impact directly on the environment and courses are increasingly including an environmental component which will help professionals minimise their harmful impacts. At the same time there has been a growth in the demand for staff who are generally environmentally competent and for staff with specialised environmental qualifications and expertise. To meet some of these demands, many traditional courses have acquired an environmental label, such as environmental engineering or environmental chemistry, many totally new courses have been launched such as environmental management and many other courses have acquired an environmental dimension. The *Directory of environmental courses 1994-1996* provides details of over 1,000 environmental courses identified from the ECCTIS 2000 database.

The origins of many developments at this level are to be found in *This common inheritance: Britain's environmental strategy* (1990) which recognised the need for environmental concerns to be reflected in courses in further and higher education. From this emerged the expert committee which produced *Environmental responsibility*, more commonly known as the Toyne Report, and a two year programme called Education and Training for Business and the Environment, run by CEE between March 1992 and March 1994. Eleven higher education institutions, each one known for its standing in a particular educational area and/or their environmental proactivity were invited to identify in broad terms appropriate environmental education content, a range of integration methods and

examples of good practice. This involved a national research exercise and a seminar targeted at each area. The findings are recorded in a series of twelve booklets, one providing an overview and the others covering the individual themes. The series, *Taking Responsibility: Promoting Sustainable Practice through Higher Education Curricula*, was launched by Professor Peter Toyne in October 1994.

Agenda 21

Local Agenda 21

One of the successes of the past 18 months has been the enthusiasm of local authorities for Local Agenda 21s. Over two thirds of Agenda 21 needs the commitment and cooperation of local government. The UK local authority associations have set up a Local Agenda 21 initiative to assist local authorities in achieving sustainable development. A series of cross-sectoral roundtable discussions have been arranged to draw up guidelines for sustainable development in various topic areas, including education and awareness raising.

The education guidelines, *Educating for a sustainable local authority*, were produced by CEE and published by the Local Government Management Board. Input came from 22 representatives of NGOs, local councils and the Department of the Environment. As well as making the case for education, the guidelines describe what is meant by education for local sustainability and the role of individuals working for the local authority. Case studies of good practice are described and analysed and finally sources of further information are provided.

The exciting thing about Local Agenda 21s is that decisions are taken at a community level and responsibility for action shared between the community, the local authority and other stakeholders such as local businesses. Education is a key component of the process. It provides information and opportunities to debate the issues, helps people make informed decisions and develops the skills people need to contribute actively to solutions.

Turning this vision into reality at community level is a major challenge for local authorities. WWF-UK is striking up partnerships with local authorities like Reading Borough Council and supporting the development of community action plans. Advertisements for staff to help develop and implement Local Agenda 21s are becoming commonplace in the press and there is potentially a huge opportunity for the development of environmental education materials and approaches for use at a community level.

Youth work and Agenda 21

The Youth Unit of the CEE can rightfully claim to be the pioneers of environmental education in youth work. Although they have enjoyed considerable success with specific projects, persuading youth workers and trainers to enhance the environmental content of the youth service curriculum has been difficult without an official mandate for environmental youth work. The Government's acceptance of Agenda 21 has changed all that. Youth is one of the Major Groups recognised by the Agenda 21 consultation process and the signing of Agenda 21 has committed national and local government to:

- encourage the growth of environmental awareness and knowledge and
- consult and involve young people at all levels of decision making and planning.

Working with local youth groups is one of the few ways local authorities can reach young people and involve them effectively in planning the local environment. The incentives for youth workers to be active on environmental issues locally have never been so strong, and the interest has never been so high. The CEE Youth Unit has identified as priorities working with those initial training agencies that have started to consider the importance of environmental youth work, as well as raising the profile of environmental youth work in the majority of institutions which are not addressing this area of work.

"The exciting thing about Local Agenda 21s is that decisions are taken at a community level and responsibility for action shared between the community, the local authority and other stakeholders such as local businesses. Education is a key component of the process."

Research

A perpetual call from those working in the environmental education movement has been for more research and for the findings of existing research to be disseminated effectively. At long last a vehicle for disseminating research is available in the form of the journal, *Environmental Education Research*, the first volume of which appeared in 1995. It is to be hoped that this information can be used to help plan more effective environmental education programmes and help generate the support the programmes will need.

The National Foundation for Educational Research (NFER) has undertaken a number of specific research projects in environmental education which make interesting, sometimes depressing and sometimes encouraging, reading.

At the joint DoE DfE conference, Dr Nicholas Tate, Chief Executive of the School Curriculum and Assessment Authority (SCAA) quoted some research on secondary schools from NFER:

- The majority of school managers saw environmental education as either a 'quite' or 'very' important part of the school curriculum. A small minority saw it as essential;
- Only 7% of schools had produced a specific environmental education policy. 42% had no environmental education policy of any sort;
- Less than 25% of schools had a coordinated, cross curricular approach across many subjects. Geography and science curricula were used as the main vehicles for environmental education. 75% of schools also used their personal and social education curriculum;
- The main constraints were identified as: lack of timetable time (because of the need to meet the statutory requirements); lack of resources; lack of staff expertise; lack of staff motivation. Other needs identified were teacher training and increased resources to deliver environmental education. (Tomlins and Froud, 1994)

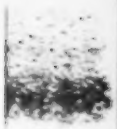
The recent plans announced by Government following the joint conference seem unlikely to address these constraints.

Research conducted for the Scottish Office Environment Department in 1994 was produced in the report, *Environmental education: is the message getting through?*. The research mainly relates to the public and found that people do not see environmental problems as having much of an impact on their daily lives. They are cynical about the seriousness of global issues, having been told of impending doom and then found life goes on as normal. It seems that unless the direct effects of their actions can be demonstrated people are not prepared to make any radical changes to life style. The question being faced by the Scottish Office is how to move the environment up the list of priorities.

Accessing environmental information in Scotland is the title of another recent research report arising out of the Scottish strategy process. It looked at information provision in the six learning contexts identified in *Learning for life*. Within the school context it found access to information was not a problem. However, information overload was. Schools are often sent substantial amounts of unsolicited information and many are unable to manage the dissemination and use of the information in an effective manner. There is vigorous debate on issues relating to information and resources and as a result of the DfE DoE conference, a review of the possible use of codes of practice, kitemarks and databases has been initiated.

Conclusions

Reviews can be interesting snapshots of where we are, but their real value is in assessing whether this is a desirable place to be, and whether our actions are taking us in the right direction to reach the destination we wish to reach. This does assume of course that there is a clear goal and that there is a known way to achieve it. While there is general agreement that the goal is sustainability, what the term means in practical terms for countries and individuals is still not clear. There is again general agreement that education is essential if the issues are to be discussed in an informed way and if there is to be genuine commitment to life-style changes that are likely to be deemed necessary. However, exactly how education can best contribute will never be fully agreed and diversity of opinion and actions will remain.



This is important with all the talk of preparing a national strategy. The environmental education movement has been pressing for some time for the Government to have a strategy for environmental education. It seems that the Government is thinking seriously about this and was due to make an announcement in autumn 1995. They have listened to advice from various groups, but none of this advice has referred to what type of strategy the environmental education movement has in mind. Is it a strategy for using education as a means of achieving public policy alongside other instruments, such as regulation and economic incentives, or is it a strategy to use education for shaping policies alongside other instruments such as public participation and consensus-building? Is it a detailed, prescriptive strategy or the provision of a general framework within which to operate?

Environmental education is certainly on a government agenda and things are happening. This is good news because it may be possible to go further than making up for some of the setbacks to environmental education resulting from government policies affecting schools and the curriculum. We do not want to become so distracted by the flurry that we divert too many precious resources away from what are regarded as priorities, but we can allow ourselves the space to have visions of what the future for environmental education can be like, celebrate the scale and diversity of current environmental education activities, give praise where it is due and encourage Government to help us achieve key objectives.

The door has been opened. It is time to stop knocking; go in and demonstrate that given the chance, environmental education is effective. We cannot afford to ignore the challenge.

Education for the sustainability transition

Professor Timothy O'Riordan, Centre for Social and Economic Research on the Global Environment, University of East Anglia

Address given at CEE Conference and AGM, Reading Town Hall, 9 March 1994

Tim O'Riordan addressing CEE's conference, March 1994

Preamble

The Council for Environmental Education has always been a prominent voice for civic education. By this I mean the preparation of every youngster for citizenship in an age of global disarray. Environmental education has consistently extended beyond the study of the causes of environmental change and a search for appropriate solutions. Every conference under its banner has emphasised the necessity of creating in everyone an awareness of the human predicament and a capacity to recognise the link between apparent self sacrifice and a wider common good. This is an age-old dilemma. It will be with us, tantalising, unresolved, for all time. Education seeks to provide the intellectual enlightenment and the spiritual emancipation in the search for a better existence for all life on earth.

CEE has always pioneered this approach. Sadly successive governments, beleaguered as they are by growing public disenchantment with politics and increasing malaise of the spirit in a criminalising society, cannot, or will not, make the connection between environmental decay and social injustice. Environmentalism is not a middle class justification for a cleaner landscape and increased recycling. It strikes at the very heart of the social condition to the point where it is capturing the central ground of civil rights and a concern for the survival of humanity as a civilising species. It is no wonder that the main environmental non-governmental organisations are talking to the social justice agencies: Greenpeace and Amnesty International; Friends of the Earth and Age Concern; the Council for the Protection of Rural England and the Child Poverty Action Group.

So I applaud CEE, I hope that it will continue to evolve into an educational world where the barriers between the classroom and the world outside are increasingly perforated, and where education is seen as a vital preparation for a society that can cope with dramatic change and human tragedy with grace and charity. The so-called sustainability revolution is essentially a transition towards a stewardship ethos and solidarity with the oppressed. It is no good talking about living within the confines of natural replenishability if only a few get the advantages and the rest increasingly suffer. The sustainability transition is in effect a social and political revolution that hopefully can take place through peace and understanding. This is the challenge for environmental education for the next generation. The implications for interdisciplinary science as an active player in this all-important transition are profound. Yet this is the arena in which environmental education now finds itself.

All this sounds like fine words. To a degree this is the case. Sadly the environmental movement is not necessarily so enlightened. The post-Rio climate still favours the strong over the weak, managerialism over empowerment and tinkering with market economics over the creation of economic self reliance in a communal setting. Environmentalism is in serious danger of playing into the hands of the *status quo* rather than being the force for change that this preamble suggests. Environmental education in practice tends towards the self serving rather than the transformational, both as an educational activity and as an ideological movement. This is a timely moment to assess the future of the phenomenon one quarter of a century after the founding of CEE.

Setting the Scene: Three Tensions

There are three great apparent contradictions that drive modern environmentalism. I claim that they are apparent because their resolution is possible if environmental education is to perform its task to its full potential.

The first is the desire to transform the earth yet also to care about the outcome. Since the emergence of *homo sapiens*, humanity has sought to improve the conditions for survival so as to give it comparative advantage over other creatures. In an obvious sense, this is little different from any species that negotiates with its surroundings in order to ensure its continuance. Why do beavers dam rivers, or weaver birds create works of art hanging from trees by the thinnest of connections? In the pre-agricultural era, small bands of humans cooperated to burn forests or channel game so as to improve their catch and hence to limit their effort per unit of energy consumed. It was never solely a mechanical process. Hunting and gathering were social activities that bonded kinships and defined political territory. Environmental alteration was therefore a socially defined and sanctioned task. In this very important sense it was proto-environmental education.

But the success of transformation had always to be limited by some sort of ethical brake. For even the most primitive of technologies could cause sufficient damage to threaten collective survival. This ethical sheet anchor is, broadly, what we term environmental conscience. Poll after poll has shown that people do care a lot about environmental destruction, not just for their offspring, but for life on earth as a whole. Where behavioural change is possible in ways that are not too costly to comfort and security, that ecological conscience will encourage new behaviourial patterns. The selection of 'ozone friendly' aerosols is a case in point, even when there is a modest price difference in favour of the ozone damaging product. So too was the selection of lead petrol though here the price signals favoured the switch.

I am not saying that human behaviour is conditioned by environmental conscience, I am only making the point that such a conscience exists. I am fully aware that the major chemical companies moved to less ozone depleting substitutes as they ploughed some of their CFC generated profits into new product markets. The Dow transition to ozone safeguarding chemicals, a transition that will take two generations to complete, is partly dictated by the profit margins of the major players, and only partly promoted by ecological conscience. Similarly the onset of lead free petrol arrived when the technology for unleaded automobile propulsion was finally in place.

The ecological conscience is necessary to generate collective action, but its effectiveness depends crucially on the structure of political power and the dominant ideology favouring managed global transformation. Part of the purpose of the ecological conscience is to make us all aware of our propensity to undermine the very life support systems that are necessary for our survival. Hence we are at least willing to consider changing our ways and searching for socially coordinative solutions.

The trouble is that the wish to transform is driven by powerful forces - a wish for comfort, security and economic stability, a preference for control over change and for the authority to command one's own future, an anxiety that any threat to survival must be overcome by technological and political dominance so that the threat is constantly contained. So the transformational drive is a human-centred desire to keep the earth in its place. This is still the dominant force, despite the so-called sustainability transition, and it is most unlikely that it will go away. Indeed quite the opposite is the case. The sustainability debate, insofar as it can be summarised, is concerned with ensuring human survival, or at least the survival chances of dominant societies, in a world that is dangerously becoming ecologically destabilised. The 'conscience' underlying sustainability is mostly a matter of self interest. To harness that somewhat selfish demand into a socially redistributing ethos of ensuring greater fairness and democracy will be one of the great challenges for environmental education in the foreseeable future.

The second great tension captures this dilemma. A progressive society believes

"The sustainability transition is in effect a social and political revolution that hopefully can take place through peace and understanding. This is the challenge for environmental education for the next generation."

in efficiency and effective management through which wealth is generated for the privileged and the assiduous, supposedly to trickle down or be redistributed to the less fortunate. Such a society, if left unfettered would marginalise the poor and the vulnerable in the pursuit of control and affluence. This trend is offset by a belief in justice, in liberty, in democracy and in fairness. Broadly speaking the time dimension of the efficient society is linear, while the time frame of the just society is circular. In part this tension is captured in the dialectic between the private and public spheres. Admittedly the distinction being made is simplistic, but this is still one that contemporary politicians try to make. Sustainable development, insofar as it can be defined, seeks to engage wealth creation and social and environmental redistribution. Not surprisingly it is the civil rights aspect of the sustainability theme that too rarely gets mentioned. The challenge for education is to connect the responsibilities of the individual as consumer with the individual as citizen. The consumer is private sphere, linear and acquisitive: the citizen is public sphere, sharing and recreative.

The third tension is the dilemma in all democracies to favour the wellbeing of present generations on the grounds that so doing they will prepare for future societies via technology, management skills and wisdom acquired by current consumption and political contentment. But the real problem facing us even now is the legacy we are likely to bequeath our great grandchildren, namely in the time zone of the mesoscale – 25 to 100 years from now.

The trouble is that we have few institutions for considering the mesoscale. Artists and novelists do so, as do academics and think tanks who are paid to speculate. But for the most part neither the law, nor economic discounting, nor elected democracies can realistically plan for 50 or so years hence. Yet this is in the lifetime of most of the children we teach. In this period, if we do not act courageously today, we will surely store up a constellation of environmental, economic and social strains and stresses that will cause possibly as many as two-thirds of the world's population to be both environmentally and socially vulnerable to the smallest of changes. It is the learned incapacity to cope that could be the outcome of a failure in this third great tension. Again, it is arguable if education is preparing us for such prospects, when a sensitised citizenry with a clear vision of what might come, can at least begin the process of learning a true capacity to cope.

"Not surprisingly it is the civil rights aspect of the sustainability theme that too rarely gets mentioned. The challenge for education is to connect the responsibilities of the individual as consumer with the individual as citizen."

Environmental Education and the Going For Green Initiative

What this suggests is that environmental policy and social policy do not fit as neatly as they ought. We live in a society of increasing disparity in all locations and countries, as well as between North and South. The vulnerable are becoming locked out of jobs, housing, training, self esteem and optimism. In millions of small ways, the application of the law, of markets and of democratic legislatures act against their interests. Environmentalists who espouse the virtues of the market, of carrying capacity equilibria, of technical fixes for environmental ills, and of new legal safeguards for critical natural ecosystems and processes in order to protect humanity on the planet, are dangerously playing with the same game of marginalising the vulnerable in the name of ecological salvation.

Here is where the proposal for a Citizens' Environmental Initiative could have great value. The idea is nebulous at present. It was suggested by the Environment Secretary, John Gummer, in the UK response to the Rio Agenda 21 (*Sustainable development: the UK strategy*). The concept has a less bureaucratic name now, being transformed into Going for Green. Right now it is not at all clear just what Going for Green is all about. Whispers suggest that Mr Gummer is trying to link his genuine concern for social cohesion and community spirit with ecological awareness. Going for Green could become the bridge between social deprivation and ecological disruption, between household action and global security, between the community and planetary citizen. In Treasury speech, it should pay to keep a youngster out of care, or secure detention centres, or prison if a modest investment is made at an early age to give him or her a real stake in serving the community. Community care must be very carefully handled. Going for Green must be seen as a personally enriching experience that straddles the three tensions in a creative and constructive way.

To do this will require the kind of public/private partnership that is still viewed with suspicion by the present administration. Ten years ago over £20 million was pumped into Manpower Services Schemes to enable the unemployed to rehabilitate degraded landscapes, habitats and buildings. The result was a renaissance of the physical setting, but little in the way of renaissance of the soul. The temporary boom of the mid-eighties soon killed off the good old MSC (Manpower Services Commission) though its death was always assured because it never was designed for follow through.

There is not an inkling of evidence that Going for Green is going to be launched with MSC type money, nor that it will be related to education beyond the classroom. It is this poverty of commitment to cost saving social measures and narrowness of vision that saddens me. We should be gearing ourselves up to Local Agenda 21s, namely to sustainable development strategies at the local level. Much work has been done to show what such strategies might look like. There would not just be energy saving, more cycling, greater proximity of work, home and

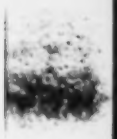
leisure, more recycling and waste minimisation, and better protected greenspace. These are the technicalities of Agenda 21. Much more significant will be schemes to devolve real power to community groups, to give budgets to streets and housing estates for insulation, job training and care provision at the level of the community unit.

In this remarkable transition, the school could become the catalyst for social transformation. The National Curriculum would be extended within the basis of practical skills such as creative use of information technology, repair and rehabilitation, as well as fashioning a variant of the informed economy. This will mean preparing youngsters for a variety of skills, a variety of economic structures and a variety of domestic circumstances. It will also encourage global networking where the computer and telecommunications become the means of building up alliances with third world non-governmental organisations. Who knows we may even create twinning Local Agenda 21s across the globe with schools acting as liaison facilitators, and pupils exchanging skills and ways of coping. In the mesoscale such a prospect is by no means impossible to contemplate.

Within this potentially exacting prospect, Going for Green remains a tiny embryo. To assist its success, the social welfare aspects of environmental improvement need to be given much more prominence. Otherwise environmental education will be dismissed as yet another example of middleclass guilt foisted on the poor and thwarting the upwardly mobile. Environmental policy needs a social impact policy dimension as part of its very conception: indeed it would be wise to promote some environmental initiatives as social issues – such as the redistribution of income tax in favour of ecotaxation to create a revenue that generates jobs and promotes the cause of income security for meeting basic needs. Right now such proto-socialistic notions must be far removed from the intentions of those promoting Going for Green. But if this is not to fail in the welter of recrimination over moralising and social rehabilitation, with no effective cash or policies to support it, and no changes in education standards or objectives to make it a reality, then Going for Green will go the way of UK 2000. That, you will recall, was designed to combine tidiness with habitat protection, and with good local authority planning practice. It has been wound up with barely a ripple of protest, or even knowledge of its existence. Going for Green is potentially too important to go the same way, but unless the schools are somehow involved in an active manner, Going for Green will also be a non-event.

The future is a matter of choice, not a given outcome. We face a more challenging era than the world has ever known. The end of the cold war, and the relative certainties of military and economic co-operation via the US and Soviet overlords has suddenly made us realise how dangerous and ubiquitous civil war can be. At present over 30 conflicts are raging, costing a million lives annually, and creating untold misery and environmental abuse. Refugees strain the generosity of receiving nations and the world's donors. Military aggravation is mirrored by social breakdown. In many parts of Africa, Latin America and southeast Asia the restraints of social order are all but removed. Anarchy breeds dangerously destabilising forces that collectively create even more social and environmental abuse. Our youngsters are facing a world made both more uncertain by the spread of scientific analysis but the failure of adequate prediction, and more unequal as the vulnerable become angry, resentful and restless.
Interdisciplinary is not simply the meeting of the scientific disciplines. It is the engaging of education with the civic sphere, the sphere of dispute, reconciliation and reconstruction. This cannot take place just in the classroom, just as science cannot remain in the laboratory or computer. The world is a place where many many people may face shortened lives of acute misery whilst reducing the scope of natural processes to ensure habitability for life on earth – at least temporarily.

Environmental education therefore needs to become civic education with a large dose of active community involvement in the processes of change that might restore stability and harmony to an increasingly troubled and disrupted world. To do this requires the skills of reconciling the tensions mentioned at the outset, of locking education into Local Agenda 21s and of recognising that civic science needs the thoughtful participation and vision of an informed and alert citizenry. Environmental education can surely play its part in this vital transformation – if it is allowed to do so and its promoters are capable of seizing the opportunity when it arrives.



"Environmental education therefore needs to become civic education with a large dose of active community involvement..."

Facilitating an environmental approach to education

Baroness David JP

Address given at CEE Conference and AGM, Reading Town Hall, 9 March 1994

I started to get involved in the conservation scene as soon as I got married in the thirties. Staying with my husband's family in their holiday cottage near Padstow, my father-in-law was busy helping to raise money to buy the cliffs round that beautiful coast for the National Trust. It was a botanically unique area. My mother-in-law and husband were keen botanists and my husband became president of the Botanical Society of the British Isles in 1980.

In 1981 I was asked by my chief whip if I would be on the front bench and help Peter Melchett who was to lead for us on the Wildlife and Countryside bill. This turned out to be a fascinating job with a steep learning curve. I think I was invited in the knowledge that my husband would be able to act as my civil servant, and he did in fact write most of my second reading speech and the briefings for the botanical parts of the bill.

So that's how I became really involved and why Peter Melchett suggested that I should chair the Education Committee when the UK was preparing its response for the *World Conservation Strategy* document in 1982.

I should perhaps add that I was an Education Spokesman on the Labour front bench and that is how I became involved with the Council for Environmental Education. John Baines was then its Director and he was the rapporteur for the Education Committee.

All here know the aims of the Council, and the one aim I shall speak about today is the encouragement and facilitation of an environmental approach to education and the spreading of good practice.

Education and training are crucial to the achievement of sustainable development and the conservation of biodiversity. They provide the population with an understanding of how the environment operates and relate to every day activities and employment and how people can reduce their own impact on the environment at home, by the use of energy for instance; in their leisure time by the use of cars; and at work.

When the government agreed to Agenda 21 at the Earth Summit at Rio it was committing itself to preparing strategies aimed at integrating environment and development as a cross cutting issue into education at all levels.

The government recently published two important documents, *Sustainable development: the UK strategy* and *Biodiversity: the UK action plan*, which purport to describe the government's plans for delivery of the commitments that it made at Rio. Both of these weighty documents pay lip service to the importance of environmental education, but they fail to provide any specific targets, timescales or strategies for its delivery.

It is worrying that there is evidence that there are fewer people coming through the amateur and professional ranks able to identify and understand the very biodiversity we are seeking to conserve. It is important that we still have people who are enthused about good 'old-fashioned' natural history and who can be given the chance to follow this through in school, in further and higher education. The formal education sector should then make the connections between *"what is there"*, and *"how it interrelates"*, with the wider environmental and social considerations. Interestingly, the Biodiversity Convention not only has a section on *"Research and Training"* (Article 12), but also *"Public Education and Awareness"* (Article 13). All conservation organisations realise how important it is to relate their work to broad environmental concerns, but those involved in the conservation of the national heritage must not leave behind support for identification skills.

Environmental education in its widest sense is much more than the study of taxonomy and ecology. It is a broad-based subject which incorporates the understanding of complex issues and the wider relatedness of the environment with development, economic and political issues. All of this creates a 'value base' from which young people can make their own minds up, in an informed way, about the issues which affect them. This improvement is vital if sustainable development is ever going to be a reality.

This is why many of the environmental organisations, (often under CEE's banner), have been putting pressure on the government to recognise environmental education as a statutory subject within the National Curriculum. Its status as a non-statutory, cross-curricular subject means that it has been marginalised. Environmental issues and information have come through in certain elements of the science and geography curricula, but this is piecemeal, and environmental education's true impact

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lies in its holistic approach, its links to lifestyle and social responsibility.

So it's even more worrying that the Dearing Report on the *National Curriculum and its assessment* makes no mention at all of the environment, nor that environmental education is a cross-curricular theme within the curriculum. The emphasis is on improving standards in the basics of literacy, oracy and numeracy, particularly at primary school level. But surely environmental literacy should also be regarded as one of the basics? What could be more important than providing young people with the knowledge, understanding, skills and attitudes necessary to sustain the environment of the very life support systems of this planet?

The only glimmer of hope is that the rationale behind Dearing is to create more time within the curriculum for the schools to choose additional topics. I think that the environmental organisations should now take the high ground to demonstrate that some of this available time should be spent addressing the wider environmental issues. I am not suggesting that environmental education should add to the teacher's workload, that we know is a factor in making the curriculum less restrictive. But that there should be improved coordination of what is already within the curriculum, and that this content is taught, where possible, in the context of the environment and its sustainable development.

I was glad to see from the *Annual Report* that CEE has entered into a dialogue with Sir Ron Dearing and has made a strong case for strengthening the position of the cross-curricular themes. You must all press hard to retain what opportunities now exist and improve on them. The government pays a lot of lip service to the environment, and what we want is demonstrable action. As a first step, all schools should be required to appoint a coordinator for environmental education to ensure adequate resourcing, continuity between different subject areas and key stages as well as the 'green policies' for the school's own management and development. Therefore, I am very glad that CEE is being invited to produce voluntary guidelines for the inspection of environmental education.

What is true for the formal sector is equally true for the non-formal sector. The environment is a complete Cinderella in the youth and careers sector, and the government is not addressing any of the strategies that lead to greater awareness of environmental problems. This is a terrible loss and is a waste as these young people are receptive, and they haven't hardened into the inflexibility and selfishness of some middle-aged and elderly. To capture their imagination is essential for the future.

So I was encouraged to read in the *Annual Report* that CEE has continued to work closely with Youth Clubs UK and has embarked on the next phase of its Youth Work Programme with a new Department for Education funded partnership initiative. This involves a consortium of youth and environmental education organisations, including Royal Society for the Protection of Birds, Royal Society for Nature Conservation, Woodcraft Folk, Commonwealth Youth Exchange Council, Youth Hostels Association and Youth Clubs UK and I wish them all success.

I should perhaps mention the Toyne Report, *Environmental responsibility: an agenda for further and higher education*. It did recommend that every institution should adopt and publicise :

a) a comprehensive environmental policy statement;

b) a policy and strategy for the development of environmental education:

c) action plans for their implementation.

Many colleges have begun to address these issues, but the report itself received only minimal publicity and there is still no national strategy for implementing these important recommendations. As with so many other aspects of the environment, sustainability and biodiversity, when it comes to providing a sound environmental education for all our young people, the government yet again has failed to turn theory into practice.

We are currently dealing in the Lords with an Education Bill which changes the whole nature of teacher training. I am not sure whether we shall be able to amend it, but I do think we should try

"...all schools should be required to appoint a coordinator for environmental education to ensure adequate resourcing, continuity between different subject areas and key stages as well as the 'green policies' for the school's own management and development."

Baroness David JP,
Opposition Spokesman
on Education in the
House of Lords

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to ensure that environmental education is supported within teacher education, both in initial training and in in-service courses. I am glad CEE is surveying current practice in initial training institutions and look forward to its report being published. What the Open University is doing is relevant here. The report from their Environmental Education and Training Task Force is an interesting document, and they say they are the only educational establishment to deliver integrated programmes of the scale and quality required. I won't comment on that, but their programme does provide great opportunities for those who wish to improve their knowledge and capabilities in this field.

Well, what can CEE do to redress the problems I've mentioned? It could produce a vigorous action plan for its member organisations, designed to urgently raise the profile of environmental education with their membership, with politicians, with other decision makers and with the general public. The environment must not be allowed to be swept under the carpet and forgotten as a political issue, as happened during the last election.

I thought you might be interested to know that on Monday this week the House of Lords set up an *ad hoc* committee to consider the United Kingdom strategy for sustainable development. Its third point/remit is how changes in lifestyle and attitudes, which will be necessary to contribute to sustainable development, can best be achieved. I'm not quite sure how long they are going to have to produce this report, but I hope it won't take more than a year and will have some very useful recommendations and suggestions.

Last Wednesday, Lord Beaumont of Whitley opened a debate in the Lords *"to call attention to the measures needed to meet the commitment relating to sustainable development made by HMG at the Earth Summit in Rio"*. It was a very good and well informed debate, and what came through, over and over again was that the government was doing far too little.

To finish my remarks I should like to quote from a speech by Lord Bridges, which summed up everything I support in very much better words than I can.

This is what he said:

"I suggest there are three broad ways in which a tough environmental programme can be delivered, first by statute law, secondly by fiscal means and thirdly by persuasion. We may need to employ all three, but I believe that persuasion is much the best. If the population of this country believes that our style of life is indeed endangering the stability of the planet it will become accustomed to that notion and finally will want to do something about it. The whole problem then becomes transformed, citizens will be more ready to accept radical changes in our pattern of living, earning, spending and travelling.

I have looked at the government's strategy to implement the Rio accords from that angle. What is being done to inform the nation and to win its active support? And at the end of the book on sustainable development there is a chapter called "Working together". There are some good things in it and it records initiatives taken by the government and by non-official bodies. There is also, encouragingly, reference to a new proposal called a citizens environment initiative.

I have nothing to say against those proposals but I urge the government to give a much higher priority to the whole issue of publicity and information. It is perhaps not wholly by chance that the subject appears in the very last chapter of the book and that part of the citizens environment initiative seems to be to pass on the initiative to the citizens.

The environmental problem is becoming more serious with every passing year. It no longer seems an exaggeration to regard the problem as one of the gravest threats to our future. If we are to win the support of the citizens of this country for some of the draconian solutions now being canvassed, it will require a more ambitious programme of public information than is now contemplated. That cannot be left to the non-governmental organisations, invaluable though they are. I believe that we will need an extensive programme of works, in schools in particular, and on television, which is now much the best medium through which to reach the public at large and is the ideal medium for publicity on this subject. It is with reluctance I conclude that this will require a high profile government-financed body, perhaps on the lines of the Health Education Authority which has done so much for the knowledge about disease and how to prevent it.

We should use this moment – the execution of the Rio programme – to set up a serious public information campaign. Only in that way will our commitment to the Rio policies serve as a proper preparation for the greater difficulties which lie ahead".

I agree with everything that Lord Bridges said, except possibly that a high profile government-financed body like the Health Education Authority should be set up. I would hope that CEE could come with a higher profile and do exactly that work of publicity and information, both I think in the newspapers and on radio, and, as Lord Bridges said, on television.

So I hope you will work hard, all of you, to do that; I'm quite sure you will.

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Education for sustainability

Sir Crispin Tickell

Address given at CEE Conference and AGM, Reading Town Hall, 16 November 1994

Introduction

We are in favour of education and sustainability in the same way that we are against sin. The problem is how to put them together. I know of no-one who argues for sustainability who does not see education as an indispensable part of the process. Without sustainability in education, there is no prospect for sustainability anyhow or anywhere.

Sir Crispin Tickell, Chair of the Government Panel on Sustainable Development, addressing CEE's 1994 conference

Sustainability

The fashionable phrase for sustainability is sustainable development, largely because development and its accompanying vocabulary of "developing" (that is to say, poor countries), "developed" (that is to say, industrial countries), or "misdeveloped" (that is to say, the former command-and-control countries) have come to be synonymous with progress, better use of human potentialities, varying degrees of industrialisation, and higher living standards on the Western model. Here are some attempts at definition:

- *"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

The Brundtland Commission on sustainable development (1987);

- *"Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."*

Principle 1 of the Rio Declaration on Environment and Development (1992);

- *"Biospherically compatible and socially equitable improvement in the quality of life."*

The Gladwin/Freeman definition (1994)

None of these definitions is satisfactory. The first begs more questions than it answers. The second does not really help. The third is virtually incomprehensible. As slogans I suppose they have some value. Sometimes aggregations of thought can point in the right direction. But they are more like a jellyfish of impressions than a logical structure. Sustainable development is like a Portuguese Man-of-War:

- it keeps a sail recognisable above the surface;
- it incorporates blobs of shapeless but nonetheless organic and interlinked substance below, much of it interchangeable;
- it feeds on material from outside and emits material itself;
- it exerts power and influence; in short it can sting.

But it is still quite useful.

To my mind the greatest defect in the Brundtland definition is not the much criticised use of the word "needs" (what are needs? and whose needs are we talking about when present differences between human needs are so great?), but rather its anthropocentricity. The world was not made for humans, and the illusion that it was is at the heart of the problem.

All concepts of sustainability must surely begin with planetary health. That health is now endangered. Before the industrial revolution, humans had already changed the face of the land, but it was a matter of warts and blemishes which could heal rather than the open surgery which has caused widening scars ever since, such as:

- the incredible multiplication of one animal species – our own – which now takes 40% of primary photosynthetic production of land, and raises questions about the future carrying capacity of the planet;
- the rising consumption of resources, both renewable and non-renewable, and increasing saturation of sinks;
- the degradation of land and water;

- changes in the chemistry of the atmosphere;
- the destruction of natural biological diversity on a scale similar to that which followed the likely impact of a planetary body 65 million years ago and ended the long dominance of the dinosaurs.

Together these changes amount to an acceleration of environmental change unprecedented since humans became an identifiable animal species.

With their short lifespan, most humans do not see the moving picture around them. To some extent our genes, and to some extent the culture we inherit, predetermine the way we look at problems. Together they constitute each human's world view in so far as he or she has one. Current assumptions include the following:

- greater prosperity and material welfare are good in themselves, and are therefore all embracing human targets; in the same way higher standards of living mean higher quality of life;
- it follows that economic growth on the traditional definition is also good; from this follows an apparatus of thinking about free markets, free trade, and high consumption;
- accompanying it is an almost religious belief in technology as the universal fixer of problems: an extension of human capacity to adapt and cope with whatever may arise;
- the spread of a culture of rising expectations, nourished by worldwide use of information technology through radio, television and the press;
- a consequent drive towards industrialisation as the indispensable means of raising living standards, reducing poverty, becoming "developed", and coping with the all too familiar problems of survival which affect four fifths of the human population.

This assemblage of assumptions, practices and aspirations amount to a treadmill to nowhere. But in recognising its character, it is still extremely difficult to get off.

We are perhaps the first human generation to see the global effects of the industrial revolution. Even in countries which have most profited from it and thereby achieved unimaginable standards of material wealth, there are growing problems of unsustainability across the whole field of economic activity, including prospects for employment at a time when computers can do more and more work, and of growing inequalities within the system. A good illustration is business behaviour as the economy moves out of recession. Who is taking on more permanent labour? Efficiency has come to mean downsizing without regard to the longer term social consequences.

For other countries, whose main wish in the prevailing culture is to be as much like industrial countries as possible, many of the same problems arise in more acute form. For some, population growth means that they have to run in order to stand still. Their resources are much less and their environments are more vulnerable. Yet who can find a politician or other leader who does not still talk of economic growth, full employment and application of market forces as answers to problems which affect ordinary people the world over? What is the advice that the World Bank and the International Monetary Fund has given over the last quarter century?

We are ridden with inconsistencies. Sometimes they are more flagrant than others:

- short term demand for fish and efficiency in obtaining it are destroying long term stocks. Yet governments, driven by notions of growth, employment and the market, seem incapable of effective co-operative action to end a palpable and self defeating process of vandalism;
- the Chinese depend on coal as a prime energy source. Yet they know that the use of such coal will cause profound damage not only to China but to the world as a whole in terms of air pollution and greenhouse warming.

This catalogue of woe derives from the prevailing culture of the main industrial countries. But I believe that, fortunately for future generations, that culture is already changing. Over the last twenty five years there has been growing anxiety about the magnitude of the dangers it presents not only to humans but to the ecosystems of life of which humans are a small part:

- the period between the Stockholm Conference in 1972 to the Rio Conference in 1992 marks a substantial change in human attitudes towards the environment. Who could have imagined in 1972 that twenty years later there would be Framework Convention on Climate Change, a Biodiversity Convention, and the compendium of environmental requirements for the next century known as Agenda 21?
- correspondingly there are the beginnings of understanding of the need for change in human aspirations: away from crude and unrealisable aims of Western-type material prosperity towards notions of a relatively steady state society in which human population, underlying sources and available sinks, and environment in the broadest sense (including the good health of species and ecosystems other than our own) can come into long term balance;
- likewise there is a new sense of the practical possibilities of what people and their governments can do to move from where we are to where we want to be through the use of the means and instruments at our command. Much of the thinking has already been done. But application has so far been tentative and patchy. It is a subject for another lecture: the central point is that over time we can put things right if we have the will to do so.

There can be nothing more difficult than changing underlying assumptions. Before cleaning up the nest, people have to realise the degree to which it is fouled. Before repairing the damage, they have to identify what and where it is. Before taking on new thoughts, they have to be able to shed old ones. As was well said by David Orr, "looking ahead to the 21st century, the task of building a sustainable world order will require dismantling the jerry built scaffolding of ideas, philosophies and idealogies that constitute the modern curriculum". Obviously education, and the values implicit in education, constitute the key.

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Education

In simple terms the aim must be to produce citizens able to develop their potentialities both as individuals and members of the community, to live in reasonable harmony with their surroundings, to think for themselves, and to cope with problems as we can now foresee them.

At the root of education for sustainability is the notion of interconnectedness. All the issues I have already outlined lead into each other, and cannot be dealt with in isolation. In most discussions of the curriculum, people put environment into the box labelled science, or the box labelled geography, or the box labelled biology, or in some cases the box labelled technology. But the environment is equally relevant to the boxes labelled economics, history, sociology, politics, and all except the most extreme specialisations. Environment reaches right across the board. It needs those with a capacity for synthesis, perhaps philosophers, to establish the connections.

This is sometimes labelled multi-disciplinary activity. But that too gives a misleading impression. Of course it is multi-disciplinary. But more important, it is interdisciplinary. It represents complex linkages between disciplines, and the dynamic relationships between them. It means seeing different problems in terms of each other. A good example lies in the field of forestry. In the 1960s the question was: how can we best exploit our forests? In the 1970s the question was: how can we best develop our forests? In the 1980s and 1990s the question has become: how can forests contribute to the welfare of local or regional ecosystems in terms of rainfall, preservation of watersheds, prevention of soil erosion, and a rich variety of human uses, including wood for timber, forest properties for medicine, public health generally, and water for irrigation and hydro-power?

Such an approach involves an assault on what some regard as the glory and others the bane of the British educational system: specialisation. There is a remarkable trend, beginning, as I remember myself, when students are thirteen or fourteen, and reaching through to post-graduate research at universities, whereby they learn more and more about less and less. It should be no surprise that the human results should sometimes be so lopsided, that the notorious gap between the arts and the sciences should be as deep as ever (with those on each side looking disdainfully upon the other), and that the idea of education and re-education as a continuous process throughout life should have had so little resonance in this country. An interesting example is the way in which academics observe a certain etiquette before venturing outside their field of knowledge. To breach the etiquette can cause outrage. Just look at the reviews by experts of such recent books as Colin Renfrew's on archaeology and language, and Peter James's on pre-classic Mediterranean chronology. As the philosopher, Mary Midgley, has well said, "defensive demarcation-disputing among professionals is not just misguided. It is thoroughly unprofessional and extremely harmful. Learning is not a private playground of the learned. It is something that belongs to and affects all of us."

Inter-connectedness between and across disciplines engenders a dynamic approach towards learning that encourages independent thinking. It also accommodates necessary notions of uncertainty. Learning cannot be static. When I look at the areas with which I am best acquainted – climate, biodiversity, history and even astronomy – I find that facts and their interpretation are in constant movement. I recently chose a new family motto: after careful thought I went for *Facta Ficta* which can be translated as "Facts are fiction", or perhaps more kindly as "It ain't necessarily so". Learning is as alive as an organism: therein lies the excitement of education.

This brings me to the most vexed and difficult question of all: values. No system of education anywhere is without values, implicit or explicit, or at least priorities. It is a dangerous illusion to think otherwise. I remember that in recent discussion about geography in the core curriculum, the Department for Education demanded a course full of facts rather than judgements on them. But the selection of facts is itself a judgement, and teaching of geography, like anything else, involves judgement all the time.

"At the root of education for sustainability is the notion of interconnectedness. All the issues ..... lead into each other, and cannot be dealt with in isolation."

"Perhaps the most important thing teachers can do is to lead their students into thinking about values themselves, to learn how to challenge as well as accept them..."

Of course we inherit the intellectual baggage of our parents, their social background, the prevailing culture, and the other standards of the society in which we live. Perhaps the most important thing teachers can do is to lead their students into thinking about values themselves, to learn how to challenge as well as accept them, to point out the weaknesses in argument or logical gaps, to inculcate the means by which values can be judged and to give them confidence in themselves. With the current decline in religious belief and practice has come a relativity in values. For many, tolerance means acceptance of almost any old values. But even if values today are not those handed down from on high in sacred books, and values are seen as social artefacts, some are nevertheless much better than others. It is the job of teachers to enable students to work through them, argue them out, and achieve a workable result. It is the job of philosophers, acting as building inspectors, to test the reliability, internal consistency and viability of intellectual constructions.

There are three other points important in any consideration of values:

- Our current system is based on competition in pursuit of material rewards and personal prestige. But competition is incomplete. In many ways notions of competition derive from Charles Darwin's identification of natural selection and what Herbert Spencer described as survival of the fittest. But this leaves out the equally important notion of co-operation between organisms and the resulting symbiosis within species and ecosystems. The same applies to ourselves. Co-operation and mutual help are just as important as competition and hierarchy.

- Education is not confined to classrooms, lecture halls and libraries. It should stretch far beyond. It is hard to understand geography without direct experience of place. History is in stones as well as books. Biology can be learned in meadows, rubbish dumps and the seashore as well as in the laboratory. Astronomy is meaningless without vision of the stars. Students need to open their minds to the world around them in all its complexity if they are to shed illusions about human domination of nature and the technological fix.

- The one big difference a visitor would notice in classrooms today, by comparison with those of thirty years ago, is the introduction of computers and computer technology. This must be welcome. Modelling has greatly enlarged human understanding and computer literacy from early years is a prize. But there are dangers. T.H. Huxley once wrote:

  "Mathematics may be compared to a mill of exquisite workmanship, which grinds you stuff of any degree of fineness; but nevertheless what you get out depends upon what you put in; and as the grandest mill in the world will not extract wheatflour from peascod, so pages of formulae will not get a definite result out of loose data."

In other words, garbage in, garbage out. Here again the philosophers are essential. We have all seen the erection of pagodas of thought, often based on incomplete information, and thus wonky modelling, which collapse when subjected to realistic analysis. We need always to regard technology as a means rather than an end and keep its use in balance with the wider objectives of education. As George Orwell once remarked: the logical end of technological progress is "to reduce the human being to something resembling a brain in a bottle".

The System

At last there is a better realisation of the importance of nursery and primary education. In this the environment has a central place. In many ways children below the age of thirteen, and still more below the age of seven, understand environmental issues and take them more to heart than do grown-ups. They see the world as it is and not through a distorting prism. At the recent meeting of the British Association, Noel Sheehy pointed out that they have a surprising grasp of systems of thought: conservation, erosion, extinction, greenhouse effect, pollution and recycling. Their sense of animism also helps.

"Many six year olds have no difficulties with the idea that Father Christmas can within twenty four hours circumnavigate the planet with a team of flying reindeer. Some believe in leprechauns and in the

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fairies at the bottom of the garden. A mind capable of accommodating these ideas will have no difficulty at all with anything that environmental science might offer."

Perhaps it is the teachers who have to broaden their minds.

Big psychological changes take place at puberty. Children are beginning to adjust to the adult world and the apparatus of this world is increasingly imposed on them. Examination requirements loom larger and larger and learning becomes fragmented with corresponding loss of the interconnectedness which was so evident earlier. But a good deal, nourished by interest in the media and elsewhere, remains. At a recent meeting with teachers from a large independent school, I learned that discussion of the environment was largely driven by pupil-power. Teachers responded rather than led. This was not for lack of interest on the part of the teachers, but rather of their awareness of the tight requirements of the examination system.

The contents and character of the new core curriculum are obviously crucial. The aims, recently stated by the Department for Education, seem excellent. They are to:

- *"Provide all pupils with opportunities to acquire the knowledge, understanding and skills required to engage effectively with environmental issues;*
- *Encourage pupils to examine and interpret the environment from a variety of perspectives – physical, geographical, biological, sociologogical, economic, political, technological, historical, aesthetic, ethical and spiritual;*
- *Arouse pupils' awareness and curiosity about the environment and encourage active participation in resolving environmental problems."*

The problem is how to do it.

Perhaps the first point is that environmental teaching should come in one way or another into virtually all aspects of the curriculum. So far it is mandatory only in the narrow range of geography, science and technology. There are also three important omissions. Nowhere is there recognition of the interconnectedness of environmental issues and the complexities of their relationships; nor of the need for pupils to be able to integrate the perspectives gained from different disciplines into a coherent view of the world; nor of the place for consideration of environmental values. Environmental issues should fall naturally into discussion of philosophy, ethics, religion and community and social responsibility. Likewise ability to judge them should form part of every citizen's intellectual equipment. Exploration of problems in pupils' immediate and familiar surroundings is a particularly good way of combining the investigation and understanding of complex systems while introducing ideas of value. Such activities as environmental auditing of schools and communities also provide a connection to the wider environment.

Even to meet the objectives laid down by the Department for Education will require re-teaching of the teachers. Guidance is needed on how they should take advantage of the knowledge, materials and help from local communities and environmental organisations. There is also need for guidance about how best to use the discretionary time available.

This in turn will require re-examination of examinations. I have long thought that the A-level system as now constituted is indefensible. So long as it exists, it distorts educational priorities within the schools, and it contributes to distortion of priorities within the universities. If I had to select two priorities for secondary education, I would go for better teaching of the teachers (with provision of the necessary guidance and materials), and widening of the examination system at the transition point between schools and universities.

So far most – but not all – universities have yet to come to terms with the environment and environmental teaching, particularly at undergraduate level. The report of the Toyne Committee, published in February 1993, brought out the main issues. The report was entitled *Environmental responsibility: an agenda for further and higher education*. It drew attention to three main strands of environmental education at this level: specialist courses leading to academic or vocational qualifications; courses on environmental topics for people already in employment; and cross-curricular greening (or action to increase environmental literacy amongst the student body as a whole).

So far the Department for Education has done little more than circulate copies of the report to interested parties. It has taken the view that the Department has no powers to intervene, and that the twenty-eight recommendations in the report should be dealt with by those directly concerned, in particular the Funding Councils. For their part the recipient institutions and the Funding Councils seem, at least to this observer, as not having taken much notice. To be fair the Funding Councils are having to cope not only with a revolution in the system of higher education (with the incorporation of polytechnics into universities), but also with debilitating cuts in public expenditure on higher education. Unless and until the vice-chancellors develop a greater sense of green evangelism, progress is likely to be slow and patchy.

Abroad, and in particular in the United States, things are different. In October 1990 there was a meeting of twenty-two presidents, rectors and vice-chancellors of universities from all over the world at the European Centre of Tufts University in Talloires, France. The result was a report and statement entitled *University Presidents for a Sustainable Future: the Talloires declaration*. Since then the declaration has been endorsed by more than two hundred heads of universities from over forty countries. So far as I know, only two British universities have endorsed it: the University of Sunderland and the University of Lancaster.

The Declaration concludes with ten points for action. They cover three main areas: interdisciplinary work on education, research, policy formation and information exchange; the responsibility of universities in environmental management, including their own affairs; and co-operation with international institutions, governments, industry and the public generally in moving towards an environmentally sustainable future. Declarations are one thing and action on them is another. So far results are patchy. In this country we have a lot to learn from what has been achieved at such universities as Tufts and Brown. At Brown University there are two undergraduate courses and one

graduate course in environmental studies, and the "Brown is Green" project for the greening of the university administration has had effects on university life as a whole.

Some British universities are already moving in the same direction, albeit at different speeds. Notable examples include the Environmental Responsibility Centre at the University of Hertfordshire, the Unit for Innovation in Higher Education at the University of Lancaster, and the exemplary environmental initiatives taken by the University of Edinburgh since 1991. I am glad to say that my own university, Oxford, is among them. A course for graduates in environmental studies began this term. Demand for places well exceeded supply. Out of the nineteen candidates eventually accepted, my college took five. I have seem them all. In their different ways they constitute a powerful example of education for sustainability.

Universities are a unique resource for teaching and research, but they are not the whole story. The last year of a student's university life is often spent in looking for jobs. To judge from the experience of Brown University, the number of specialised jobs in the environmental field is steadily increasing. But there needs to be better co-operation between employers and educational establishments in designing courses for full-time students and people already in employment. Perhaps more important, understanding of the environmental dimension in all jobs is already increasing. The greening of human values through education would be of little avail if there were not a corresponding greening of society, government, business and the rest at the same time. Slowly but visibly this is beginning to happen.

There is a lead from the top: governments have entered into a range of international obligations which require real changes in economic management (for example the reduction of carbon emissions to 1990 levels by 2000) and more are to come if the work of the Framework Convention on Climate Change, the Biodiversity Convention and the work of the United Nations Commission on Sustainable Development is to have meaning. Within Britain there is new and tough legislation on environmental issues, and earlier this month the government published a Bill to constitute an Environment Agency with wide powers. At the same time such bodies as the Advisory Council on Business in the Environment, the International Chambers of Commerce and the Business Council for Sustainable Development are in their different ways bringing the environmental dimension into business and industry. Let us hope that the professions – lawyers, bankers, chartered accountants, doctors – are doing likewise. I was once bold enough to tell the annual general meeting of the Institute of Directors that if businesses did not respond better to environmental concerns they would find it increasingly difficult to sell their products, dispose of waste, obtain insurance, attract finance, recruit able staff and not least keep within the law.

Last January the Government published a massive volume on sustainable development, the product of a wide ranging and sometimes painful Whitehall process of consultation. At the same time it set up a Government Panel on Sustainable Development to advise the government on the issues raised in its paper and monitor its progress across the environmental field. This Panel has commissioned work on the role of the environment in education. The Department for Education and the Department of the Environment have contributed papers, and are now looking for the views of others outside government. We already have an interesting contribution from the Council for Environmental Education, which is consulting its constituent bodies. The Confederation of British Industry has published guidelines for businesses on preparing environmental education resources for schools. So the debate is well launched. I think it will also be launched at the Round Table on Sustainable Development, and at the local grass roots level in the government initiative known as Going for Green.

Within the framework of Local Agenda 21, the Local Government Management Board has just published a paper entitled *Educating for a sustainable local authority*. This suggests ways in which local authorities can develop community participation. Education of the community at large can only take place through bringing the idea of sustainability into everyday life and work. There too the debate is launched. We shall hear a lot more of it. We would do ourselves a disservice if we did not take advantage of these new mechanisms for promoting change.

In some ways Scotland is ahead of the rest of the United Kingdom. A report entitled *Learning for life* was commissioned by the Scottish Secretary of State and published in April 1993. It sets out a ten year strategy which we could all, the Scots included, do well to follow.

I have ranged widely from sustainability to education by way of values and the greening of society. This is an enormous agenda. For those who encounter resistance, whether from sophistry or vested interest, I have a two-edged word of encouragement. Nature will surely win in the end. The question is when and how? After more damage to our society, to life in general, and to the good health of the planet? Or in conformity with a redirection of human thought and endeavour? In my view it would be as well to be on the winning side from the start.

"Call to action"

Peter Smith HMI,
Office of Her Majesty's Chief Inspector of Schools

Address given at the launch of the CEE/RSPB pamphlet, "Call to Action" (*Develop an environmental policy: a call to action for schools*), Church House, Westminster, London, 18 May 1995

The launch of the "Call to Action" initiative is important for at least two reasons. The first is the pressing need for policies about environmental education to be established and implemented in schools, the second is that the initiative represents an evolving development in co-operation between voluntary organisations interested in a range of environmental concerns and the world of business and industry.

This second point of partnerships is vital for making progress with matters concerning the environment: whereas organisations, institutions and departments must, inevitably, have boundaries and legal limits to their actions, the environment does not recognise them, or notice them. The winds and seas do not know or care when they cross frontiers. Thus the recent joint conference between the Department for Education and the Department of the Environment, Education and the Environment: the Way Forward (27 February 1995), is a welcome liaison. So, too, are those liaisons which have resulted in this current initiative, the "Call to Action" for schools to develop environmental policies. Perhaps we should consciously modify the call of "Act locally, think globally" to "Think globally, collaborate and co-operate locally".

To return to the matter of policies. There is no more important thing than concern and care for our environment. This is not just a personal opinion; it is quite clearly stated in the "Call to Action" document by the Prince of Wales:

"I don't think it is an exaggeration to say that the future of our species on this planet will depend on our success in educating future generations about environmental issues which, ultimately, govern our survival"

and the Secretary of State for Education:

"Equipping all our children with the knowledge and understanding to grapple with environmental issues is essential".

Referring to policies and the impact of humankind on its environment, allow me a slight digression to indicate the effect of a proposed policy which was discussed by the American environmental agency, Worldwatch (Washington DC). It concerns the wish

of the Chinese government to improve the health of its citizens by increasing the individual's average intake of eggs from 100 per person per annum to 200 by the year 2000. Bear in mind that of the world's current population of some 5.2 billion, China contains 1.3 billion, a quarter of the total and a figure guaranteed to rise. It is estimated that an additional 60 billion hens will be needed to produce the eggs. Assuming that they were fed on grain, this would consume more than the equivalent of Australia's current grain output. If that doesn't demonstrate the impact of China's policies on the world's economy sufficiently, imagine the effect of one extra bottle of beer per person per annum in China, the equivalent of some 370,000 tons of grain; and imagine the increased demand for energy as people want to drive cars....

"...possibly the most important consideration is to improve the profile of environmental education with the inspectors of schools..."

Peter Smith, HMI for geography and environmental education

Schools need proactive attitudes to the environment. I want briefly to look at two factors which influence this. The first is the position of environmental education in the curriculum, where I see some good news. The second is in the position of environmental education in schools, where there is much to be done yet, and why this "Call to Action" is so opportune.

You will know of the proposals for the reforms to the National Curriculum put forward by Sir Ron Dearing (rhymes with "cheering"!) and their implementation from September 1995. Slimming of subject content has had little effect on the environmental dimensions of the principal subject carriers of education about the environment, *viz* geography, science and technology. In some respects the role of the environment in the curriculum has been refocused and strengthened, although there were some losses too. For example, the absence of geography as a compulsory subject at Key Stage 4 is a significant loss at an age when pupils are consolidating their attitudes to their world. But whilst losing Key Stage 4, some of its important content on sustainable development and stewardship was introduced into Key Stage 3, and so will be taught to all pupils.

Where do the reforms leave the cross-curricular themes, of which environmental education is one? They have never been withdrawn, and continue to be there for schools that wish to use them as a way of tying together and making more coherent their subject teaching.
Cross-curricular co-ordination is hard, however, and after a period of curricular turbulence and overload, it may be some time before the situation improves. To establish policies for environmental education, beyond cross-curricular co-ordination, will require conviction, co-operation and commitment, and that is why the "Call to Action" is an important first step.

Leaving behind the theoretical position of environmental education in the curriculum, I would like to move onto my second point concerning the position and practices of environmental education in schools, a commentary based on research and evidence. Two studies paint a somewhat gloomy picture of the situation. A questionnaire survey by Barbara Tomlins and Katie Froud for the National Foundation for Educational Research (September 1994) of 500 secondary schools in England had a 59% response rate in its enquiry into provision for environmental education. Although most senior management teams saw environmental education as "quite" or "very" important (and a few said it was "essential"), only 7% had established any sort of policy; 42% had no policy at all and the rest saw environmental education as being part of other initiatives. A quarter of respondents said their co-ordinated approach relied on the content of National Curriculum subjects. Difficulties related to insufficient timetabled time and to lack of resources, expertise and motivation.

This survey, as also my own following evidence, coincided with a period of curriculum turbulence and overload which led to the Dearing proposals for reform: it may be argued that the evidence comes from a low point, but that is where we possibly are.

My own survey in autumn 1994 was of 682 primary and secondary schools, using OFSTED (Office for Standards in Education) school inspection evidence. Only 17% of the evidence forms referred to environmental education and only 12% of the published reports contained any references to environmental education, doing so usually in the context of cross-curricular provision, listed with

the other cross-curricular themes. The evidence indicated that only 2% of schools had any policy for environmental education, 1% had undertaken an audit, and 10 schools had a co-ordinator in post. A somewhat depressing finding, although I would readily admit that this may tell us as much about inspections, inspectors and the *Framework for inspection* as it does about environmental education in schools. The situation may be much better than this evidence suggests: if something is not reported on, it doesn't mean it doesn't exist; it may just not be seen as a priority to report on. So possibly the most important consideration is to improve the profile of environmental education with the inspectors of schools, and for this reason I strongly recommend that a copy of the "Call to Action" document be sent to all OFSTED inspectors at the same time as it goes to all schools, coinciding as it should with schools' revisions of their curricula to take on board the new National Curriculum legislation.

To draw together the findings of the two sources of evidence: in terms of policies for environmental education few schools have them. Where they are found, so too is specific INSET provision and a co-ordinated approach. Where policies exist they make much of encouraging in pupils a positive attitude to the environment, with a clear contribution being made to pupils' spiritual, moral, social and cultural development. Although many schools think environmental education is important, few have devised a management strategy to promote it.

In terms of practices, environmental education is mainly taught through a limited number of National Curriculum subjects and, more particularly, through courses in personal and social education (PSE) in secondary schools. PSE is an important carrier of content about and attitudes to the environment. There is some growing use of school grounds and the local area for promoting environmental education and improvement. The evidence from the Learning Through Landscapes initiative is that over 8,000 schools made contact with them last year. And other research has shown that improvements to school grounds may have a beneficial impact on bullying in schools.

In terms of constraints, there have been many which have limited the development of environmental education in its wider definitions. An obvious one has been that over the past few years schools have needed to concentrate on the statutory provision of National Curriculum subjects: this has particularly affected primary schools where much good environmental education has traditionally taken place. Other influences have been OFSTED inspections, with their focus on subjects. Understandably schools have concentrated on these, but as evidence grows they should be willing to ask for attention to be paid to environmental education practices and their contribution to the quality of education. But the general dearth of INSET for environmental education in recent years, and the lack of staff expertise and confidence at times, will need to be overcome.

There is a big task ahead and the "Call to Action" is an opportune and timely initiative. Schools will need to establish partnership with their pupils, parents and the local community, based on the idea of the Eco-School, a microcosm of sound environmental practices, and with links into the growing number of Local Agenda 21 initiatives.

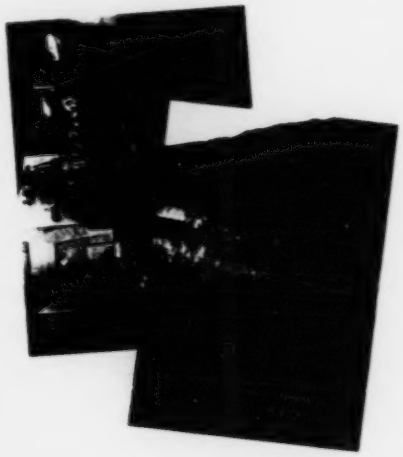
Despite the undoubted difficulties in bringing these initiatives to successful conclusions, there is good news. All the recent research evidence about young people and their attitudes to the world (carried out in 1994 by MORI for the Department of the Environment) indicates their real concern for matters environmental, from local issues of litter and vandalism to national and global concerns of pollution and biodiversity. The door is open – it needs a good push to get this vital initiative underway. Since no-one will admit to being against environmental education, the prospects improve with each moment. The pupils are our allies in waiting: we must call them to action.

"Schools will need to establish partnership with their pupils, parents and the local community, based on the idea of the Eco-School, a microcosm of sound environmental practices, and with links into the growing number of Local Agenda 21 initiatives."

Education or catastrophe?

Scottish strategy throws down the challenge

Mark Wells, Chief Executive, Scottish Environmental Education Council



"Human history becomes more and more a race between education and catastrophe".

This is the apocalyptic quote from H G Wells which opens the recently published *Scottish strategy for environmental education*.

The Strategy is the official response to *Learning for life* (the report of the Secretary of State for Scotland's Working Group on Environmental Education) and sets out the Government position into the next millennium. But what exactly is environmental education, and how does the Strategy match up to the expectations which have developed in the five years since the Working Group was set up?

Definitions of environmental education abound, but it is essentially a simple concept: the learning which encourages environmentally responsible attitudes and actions. It encompasses all environments, built and natural, and all learning opportunities, formal and informal. Environmental education is learning for life, for real.

Education has been an accepted item on the environmental agenda for over thirty years now. But, whilst few would dispute its importance, equally few have genuinely taken it on board. Agenda 21, one of the most influential of the 1992 Earth Summit documents, brought the message firmly home, recommending that all Governments should establish strategies to fully integrate environment and development into education.

So Scotland was well ahead of the game, and *Learning for life* was positively received by a wide audience at home and abroad. Expectations amongst Scottish practitioners have run high since submission of the report in 1993. More than two years later, the Strategy was published, to less than rave reviews. The Scottish Environmental Education Council (SEEC), the voluntary organisation established as long ago as 1977 expressly to develop environmental education, received dozens of comments:

"Devoid of positive action and desperate to spare every expense" was one reaction. *"The title belies the content because there is no strategy"* suggests another. *"It is not sufficient to meet the needs of today's world. It does not address the stark problem posed by H G Wells."*

So is environmental education in Scotland, once the envy of the world, foundering in the wake of the Strategy, and are we now on a collision course with catastrophe?

Apparently not. SEEC has given a cautious welcome to the Strategy, one of only a handful anywhere in the world, and to the new Education for Sustainable Development Group set up by the Government to assist its implementation.

Scotland enjoys an excellent reputation for environmental education; the challenge for us now is to turn these legitimate criticisms into positive developments within the Government's strategic framework. There is still a strong commitment in Scotland to the ethos of *Learning for life*, despite the weaknesses of the resulting Strategy.

If education means avoiding environmental catastrophe, then Scotland is certainly helping to lead the way. And the publication of a national Strategy, warts and all, is a significant step forward. But it is a dynamic process, and neither *Learning for life* nor the Strategy should be quietly gathering dust on Scottish Office shelves. Environmental education is about awareness and action, from Secretary of State to schoolroom, Board of Directors to bathroom. If *Learning for life*, the vision, is to become learning for life, the reality, it will require more than civil service rhetoric dressed up in a glossy cover.

Mark Wells

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CEE was established in 1968 to provide a focus for organisations with an interest in environmental education in England, Wales and Northern Ireland. It is widely recognised as the national body with responsibility and concern for all aspects of environmental education.

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